

5441 I Claim:

1. A safety apparatus of a piezoelectric lighter which comprises a casing having a liquefied gas cavity defined therein and a cap cavity; a gas ejecting tip appearing from a ceiling of said casing and communicating with said liquefied gas cavity; a windshield mounted on said ceiling of said casing and encircling said gas ejection tip; a piezoelectric unit which is fitted in said casing having an igniting tip connected thereto; and a thumb-push cap, which is fitted in said cap cavity of said casing in a vertically movable manner, exposing a top portion thereof above said casing and being attached to a top end of said piezoelectric unit; wherein said safety apparatus comprises a pressure absorbing device disposed in said cap cavity of said casing of said piezoelectric lighter, a holding means integrally affixed to an interior surface of said thumb-push cap for rigidly holding one end of said pressure absorbing device in position, and a receiving means provided in said cap cavity for receiving and supporting another end of said pressure absorbing device in position, so that said pressure absorbing device is vertically held between said thumb-push cap and said ceiling of said casing for urging said thumb-push cap at an upper normal position thereof and providing an additional press resistance to said thumb-push cap, so as to resist a downwardly pressing force applied by an under age child on said thumb-push cap while an adult is capable of pushing down said thumb-push cap easily.

2. A safety apparatus of a piezoelectric lighter, as recited in claim 1, wherein said pressure absorbing device comprises a deformable resistance piece and an elastic element coaxially attached to said deformable resistance piece, said elastic element being a soft elastic spring merely for urging and supporting said thumb-push cap in the upper normal position thereof.

3. A safety apparatus of a piezoelectric lighter, as recited in claim 2, wherein said holding means comprises a holding ring integrally protruded from an inner surface of a top wall of said thumb-push cap for firmly holding a top end of said deformable resistance piece, said top end of said deformable resistance piece being fittedly inserted into said holding ring.

4. A safety apparatus of a piezoelectric lighter, as recited in claim 2, wherein said receiving means comprises a tubular receiving guider integrally and upwardly extended from said ceiling of said casing within said cap cavity, wherein said receiving guider has an inner diameter slightly larger than an outer diameter of a bottom end of said deformable resistance piece and a length longer than a length of said elastic element, said elastic element being

received inside said receiving guider, and that said deformable resistance piece has a length larger than a distance between said holding means and said receiving guider, said lower end of said deformable resistance piece being inserted into said receiving guider and pressed on said elastic element so as to vertically hold said deformable resistance piece in position, so that said elastic element provides an elastic force urging upwardly against said deformable resistance piece and said thumb-push cap so as to retain said thumb-push cap in the upper normal position thereof.

5. A safety apparatus of a piezoelectric lighter, as recited in claim 3, wherein said receiving means comprises a tubular receiving guider integrally and upwardly extended from said ceiling of said casing within said cap cavity, wherein said receiving guider has an inner diameter slightly larger than an outer diameter of a bottom end of said deformable resistance piece and a length longer than a length of said elastic element, said elastic element being received inside said receiving guider, and that said deformable resistance piece has a length larger than a distance between said holding ring and said receiving guider, said lower end of said deformable resistance piece being inserted into said receiving guider and pressed on said elastic element so as to vertically hold said deformable resistance piece in position, so that said elastic element provides an elastic force urging upwardly against said deformable resistance piece and said thumb-push cap so as to retain said thumb-push cap in the upper normal position thereof.

6. A safety lighter of a piezoelectric lighter, as recited in claim 3, wherein said top end of said deformable resistance piece is glued to said holding ring.

7. A safety lighter of a piezoelectric lighter, as recited in claim 5, wherein said top end of said deformable resistance piece is glued to said holding ring.

8. A safety lighter of a piezoelectric lighter, as recited in claim 2, wherein said deformable resistance piece is made of a cylindrical rubber post.

9. A safety lighter of a piezoelectric lighter, as recited in claim 3, wherein said deformable resistance piece is made of a cylindrical rubber post.

10. A safety lighter of a piezoelectric lighter, as recited in claim 4, wherein said deformable resistance piece is made of a cylindrical rubber post.

11. A safety lighter of a piezoelectric lighter, as recited in claim 5, wherein said deformable resistance piece is made of a cylindrical rubber post.

12. A safety lighter of a piezoelectric lighter, as recited in claim 6, wherein said deformable resistance piece is made of a cylindrical rubber post.

5 13. A safety lighter of a piezoelectric lighter, as recited in claim 7, wherein said deformable resistance piece is made of a cylindrical rubber post.

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